REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Applicant herewith files a Request for Continued Examination, along with new claims and claim amendments which are believed to better patentably distinguish over the hypothetical combination of prior art.

Claims 1-6 and 16-17 stand rejected over Holland in view of Kim. Many of the other claims also stood rejected over this combination, and/or in view of Cox. In order to emphasize the patentable distinctions of these claims, these claims have been amended to better emphasize these features.

Claim 1 has been amended to better describe the shape of the "grid of conducting wires". The grid now defined as a first set of wires extending in a first direction and a second set of wires extending substantially orthogonal to the first set. The grid thereby surrounds a plurality of areas. Each of the surrounding areas forms a pixel.

Advantages of this system are extensively discussed in the specification. Specifically, for example, a bias electrical potential can be better distributed to the pixels and enhance the uniformity of the bias voltages (see the bottom of page 7).

This specific structure and layout is in no way taught or suggested by the hypothetical combination of Holland and Kim. Holland teaches the basic back illuminated diode, and Kim shows two different layers of metallization. The metallization layer 1 extends in substantially the same direction as the metallization layer 2. It does not form a first and second set of wires as claimed, and certainly does not surround areas to form a pixel as claimed. Therefore, claim 1 should be allowable for this reason.

Claim 19 has been amended in a similar way, and should be allowable for similar reasons.

Claim 7 defines a scintillation array. The patent office's position is apparently that Cox shows a single scintillation array and that there is no additional advantage in using a scintillation array. However, this is more than mere duplication. According to the present system, a scintillation array is formed with each element of the array associated with one of the pixels. This language has been added to claim 7 and is not taught by the prior art. Claim 7 also specifies the optically reflective surfaces between the elements of the scintillation array. Since by the patent office's own admission, Cox includes only a single scintillation element, Cox obviously did not even consider the problems caused by optical

crosstalk between elements and therefore teaches nothing about optically isolating one scintillation element from another, as claimed.

Additional claims are also added herein, which define additional aspects that are in no way taught or suggested by the cited prior art. Specifically, claim 35 teaches that the scintillation array has trenches extending part way through the substrate and claim 40 defines that these trenches are aligned with the grid of conducting wires. Again, this is in no way taught or suggested by any of the cited prior art, and produces special advantages. Specifically, since the trenches are dead areas, no real estate on the chip is lost by aligning them with the conductive wires. Nothing in the hypothetical combination of prior art in any way suggests these features. Claim 37 defines that the anti-reflection layer comprises a plurality of dielectric layers forming a multi-stack. Nothing in the cited prior art teaches or suggests this feature. Claim 38 defines that the grid of conducting wires is substantially coplanar with the anti-reflection layer and again this is in no way taught or suggested by the cited prior art.

The remaining claims should be allowable for similar reasons to those discussed above with respect to the respective independent claims.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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